CD AUTO CHANGER CONTROLLER

# KCA-R30FM/R40FM

# SERVICE MANUAL

KENWOOD

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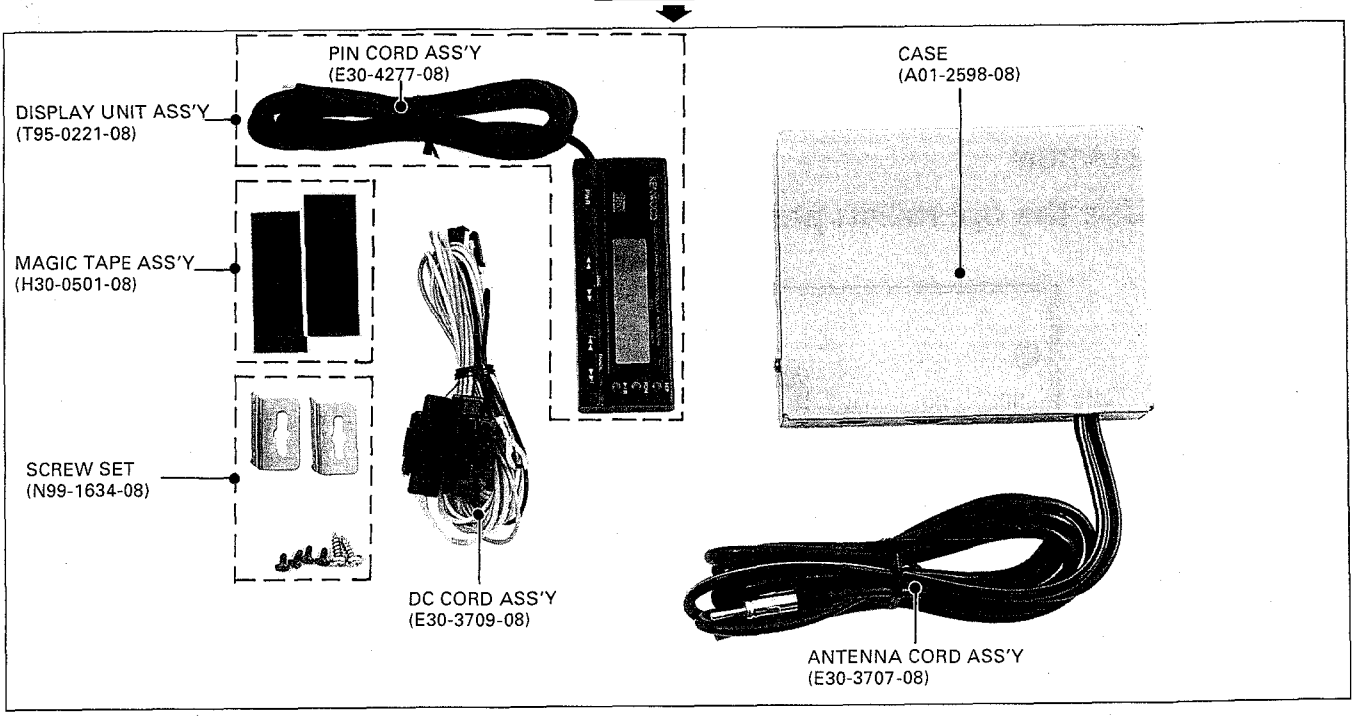
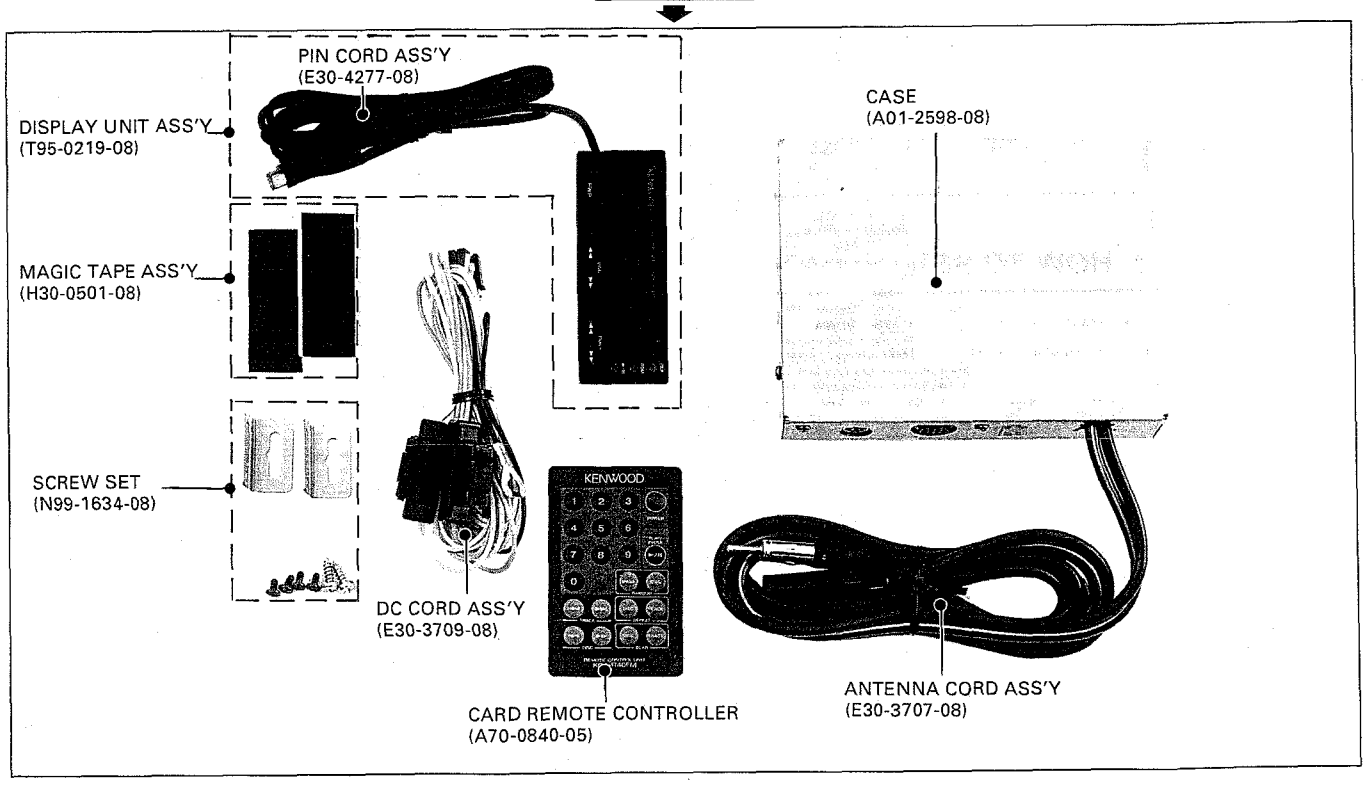
B51-6889-00(MC) 1593

**KCA-R30FM**




**KCA-R40FM**



# KCA-R30FM/R40FM

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### CONTENTS


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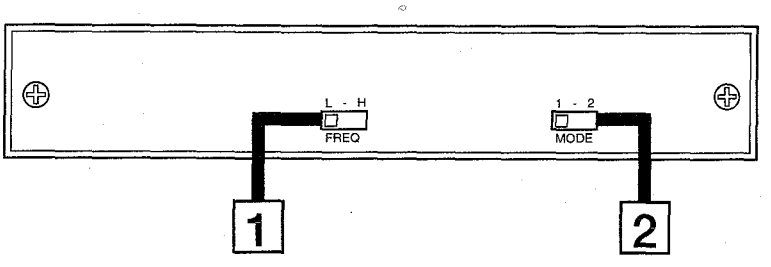
### BEFORE INSTALLATION

#### Use the operation panel of RF modulator unit




#### 1 HOW TO SET MODULATION FREQUENCY

- Set this modulation frequency into either "L" or "H" , either of which causes less radio interface(noises) than other because FM signals are modulated to 88.3 MHz and 88.7 MHz if "L" and "H" is set respectively. The reception frequency of the radio is also changed to the one specified with this switch.

**88.3 MHz** ⇦ ⇨ **88.7 MHz**

L - H

FREQ

#### 2 HOW TO SET THE MODE SWITCH

- Select either mode position to meet your system's volume; if Position 1 gives rise to noise, use Position 2

1 - 2

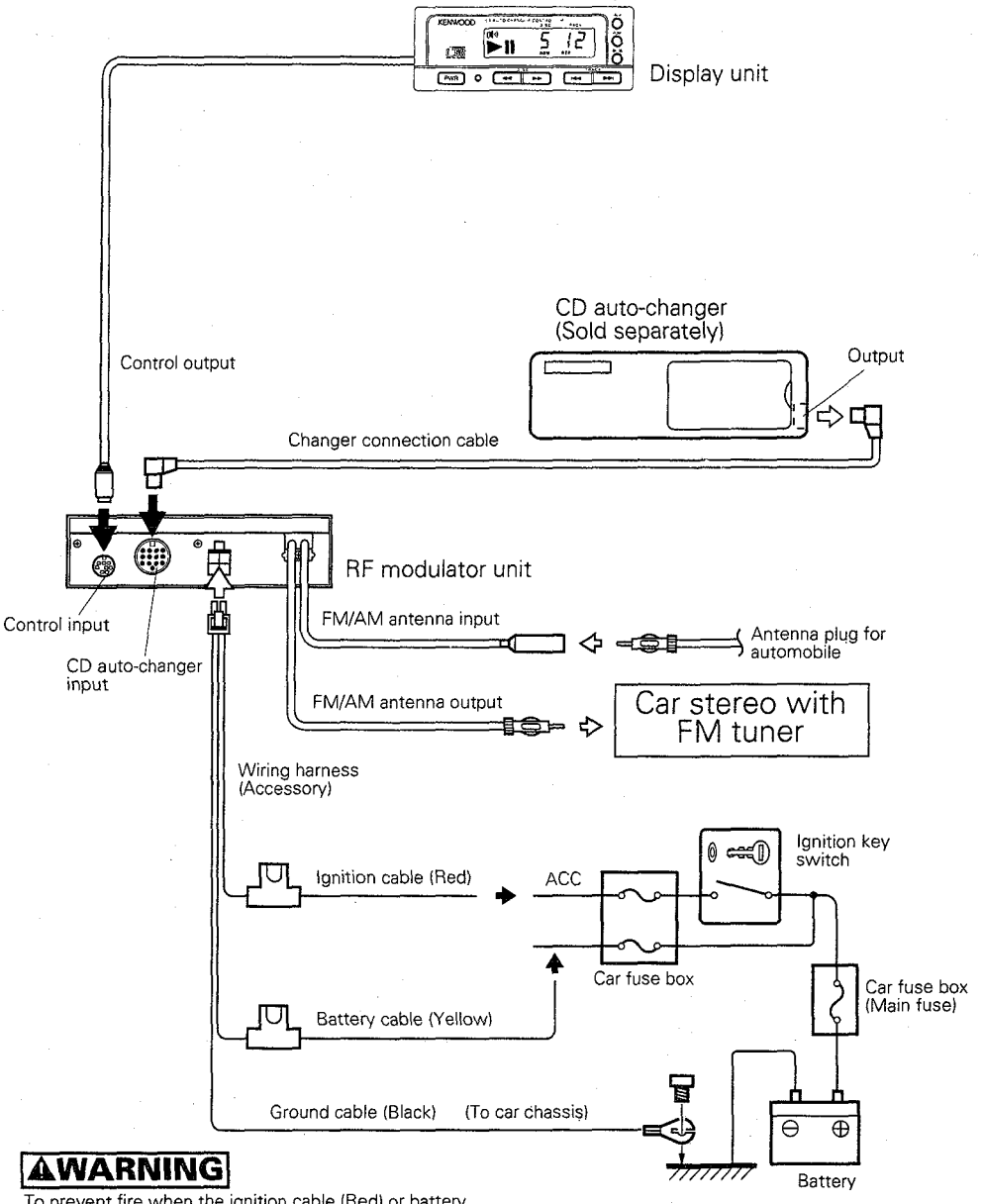
MODE

| Position of MODE switch | Volume |
|---|---|
| 1 | Normal |
| 2 | Low |

**NOTE**

- Playing a disc with a high record level may introduce noise; use Position 2 toward off the noise out of this type of disc.

# CONNECTIONS




**⚠WARNING**

To prevent fire when the ignition cable (Red) or battery cable (Yellow) is short-circuited by coming into contact with the vehicle chassis (ground), only connect the power supply after making the fuse box connections.

# KCA-R30FM/R40FM

## TROUBLESHOOTING GUIDE

**Often, what appears to be a malfunction is due to user error. Before calling for service please consult the following table.**

| Symptom | Cause | Remedy |
|---|---|---|
| The power is not turned on. | The wiring harness fuse blows. | Check cables for shorts, then replace the fuse with one of with the same rating (shown on the case). |
| No sound or sound is low. | The volume level is minimum. | Raise the volume level. |
| | The fader or balance is set to one side. | Adjust the fader and balance. |
| | The input/output cable or wiring harness is connected incorrectly. | Connect the input/output cable or wiring harness correctly. See "Connections" (Page 19). |
| The unit does not work properly when a button is pressed. | The microcomputer malfunctions. | Press the Reset button of the display unit. |
| Sound quality is poor. (Sound distortion) | The volume level is too high. | Use the appropriate volume level. |
| CD play does not start. | CD auto-changer input is not connected to the unit. | Connect the CD auto-changer input to the unit. |
| | Power button is not turned ON. | Turn the power button ON. |
| The specified disc is not played; a different disc is played instead. | The specified disc is very dirty. | Check and, if possible, clean the disc. See "Cleaning your discs" |
| | The disc is loaded upside down. | Eject the disc magazine and insert the disc correctly. |
| | Two discs are inserted in a slot. | Eject the disc magazine and insert the discs correctly. |
| | The number of the slot into which the disc is inserted is different from the number of the specified disc. | Eject the disc magazine and check the number of the specified disc. |
| | The disc is severely damaged. | Use another disc. |
| Sound skips due to vibration. | Something is touching the CD auto-changer. | Keep it away from the CD auto-changer. |
| | The disc is dirty or damaged. | If sound skips at the same part, the disc is faulty. Check and, if possible, clean the disc. See "Cleaning your discs". |
| | The unit is mounted at a slant. | Mount the unit so that is level. |
| | Changer unit is mounted in an unstable place. | Mount the unit in a stable place. |
| | The angle adjustment switches are set improperly. | Set the angle adjustment switches to the correct positions. |

# TROUBLESHOOTING GUIDE

| Symptom | Cause | Remedy |
|---|---|---|
| Sound quality is poor. | The recording of the disc is poor. | Try playing another disc. If the sound is good, the fault was with the original disc. |
| | The disc is dirty or damaged. | Check and, if possible, clean the disc. See "Cleaning your discs". |
| No sound is heard even though the information concerning the CD auto-changer is displayed. | Volume is set to minimum level. | Raise the volume level. |
| | The microcomputer does not function correctly. | Press the Reset button of the display unit. |
| | The system is not connected properly. | Connect the system properly. See "Connections" (Page 19). |
| The specified track is not played. | The player is set to RANDOM PLAY. | Turn off RANDOM PLAY. |

**In some cases, you may see one of the following error messages on your unit's display.**

**E 01:** No disc magazine in changer. Disc magazine is not inserted properly.
⇨Insert the disc magazine properly.

**E 02:** No disc in disc magazine.
⇨Load a disc in the disc magazine.

**E 04:** Disc is too dirty. The disc is upside down. The disc is damaged.
⇨Clean the disc and insert it correctly.

**E 99:** The unit malfunctions due to a defective CD mechanism.
Press the Reset button. If the "E 99" message does not disappear, contact your Kenwood dealer.

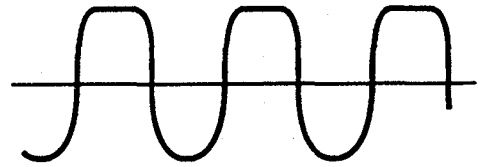
**E 0d:** When the temperature exceeds 60°C, a protection circuit will stop all operations. This message will then be displayed.
⇨Let the place where the changer is located cool down. As soon as it has cooled, the changer starts playing.

# ADJUSTMENT : RF MODULATOR

## RF MODULATOR

**1. DC balance adjustment**

Connect an oscilloscope to TP5. (AC)
Rotate VR302 to adjust the upper and lower sides of the displayed waveform are symmetry.

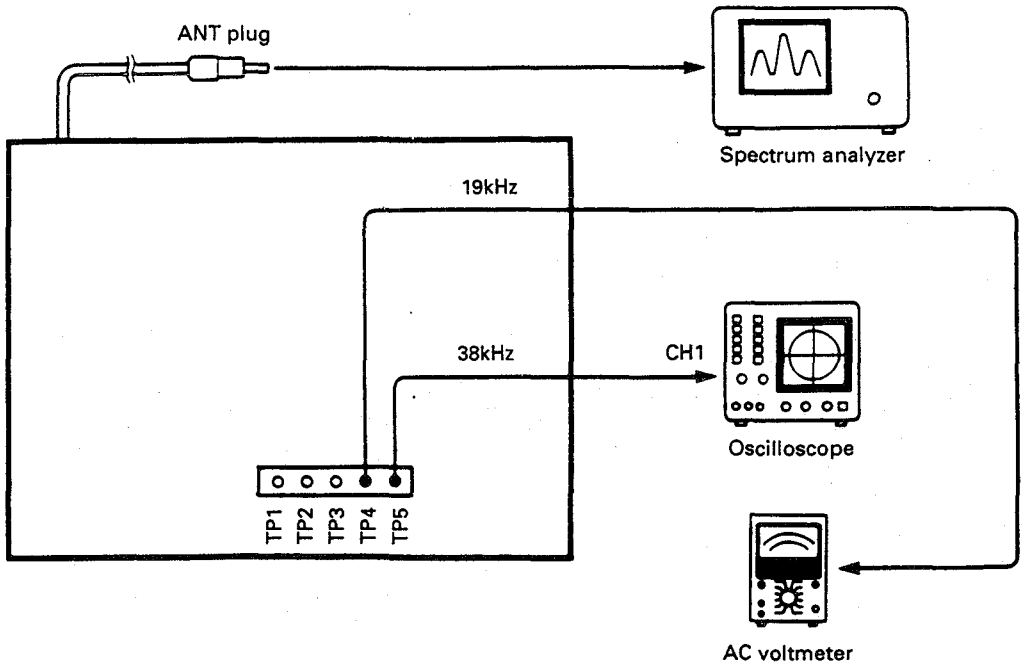


**2. Pilot level adjustment**

Connect an AC voltmeter to TP4.
Adjust VR303 so that the AC voltmeter reads 44mV (±0.5dBm).

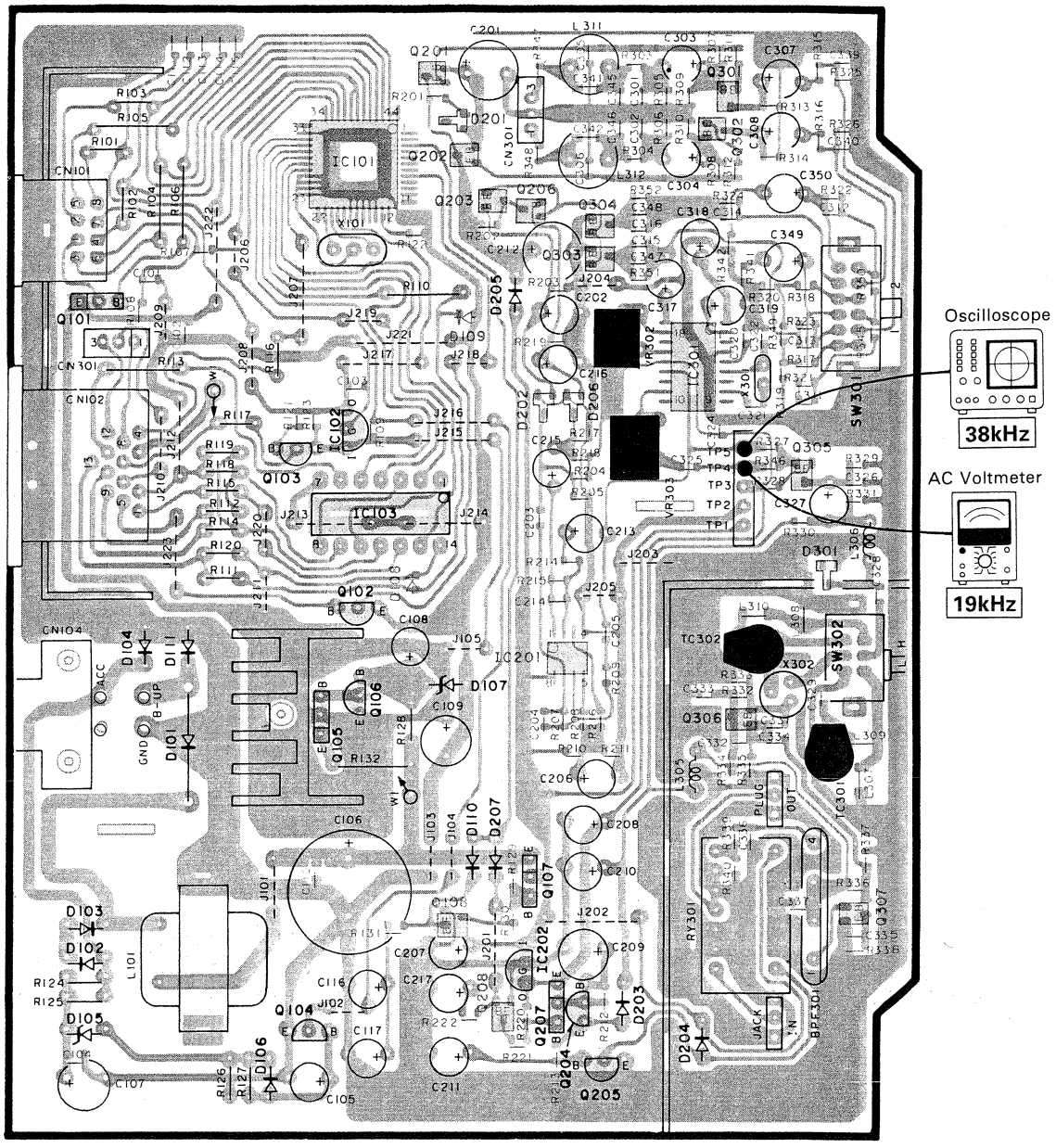
**3. Transmitting frequency adjustment**

Connect the spectrum analyzer to ANT plug.
Lo : Adjust TC301 so that the spectrum analyzer reads 88.3±0.005MHz.
Hi : Adjust TC302 so that the spectrum analyzer reads 88.7±0.005MHz.

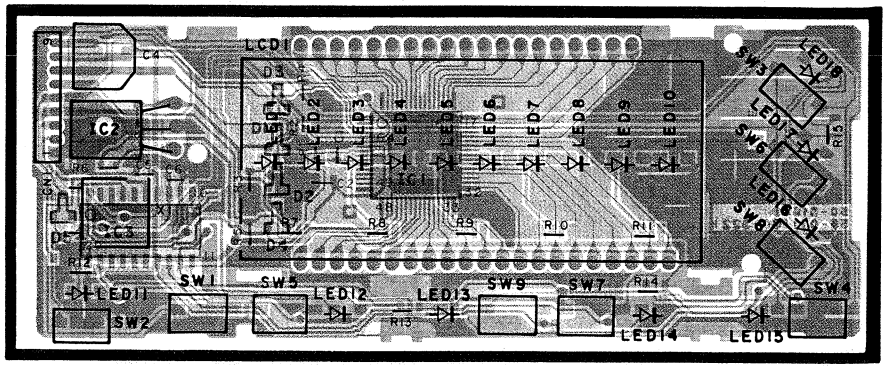


# PC BOARD (Component side view)

## RF MODULATOR UNIT



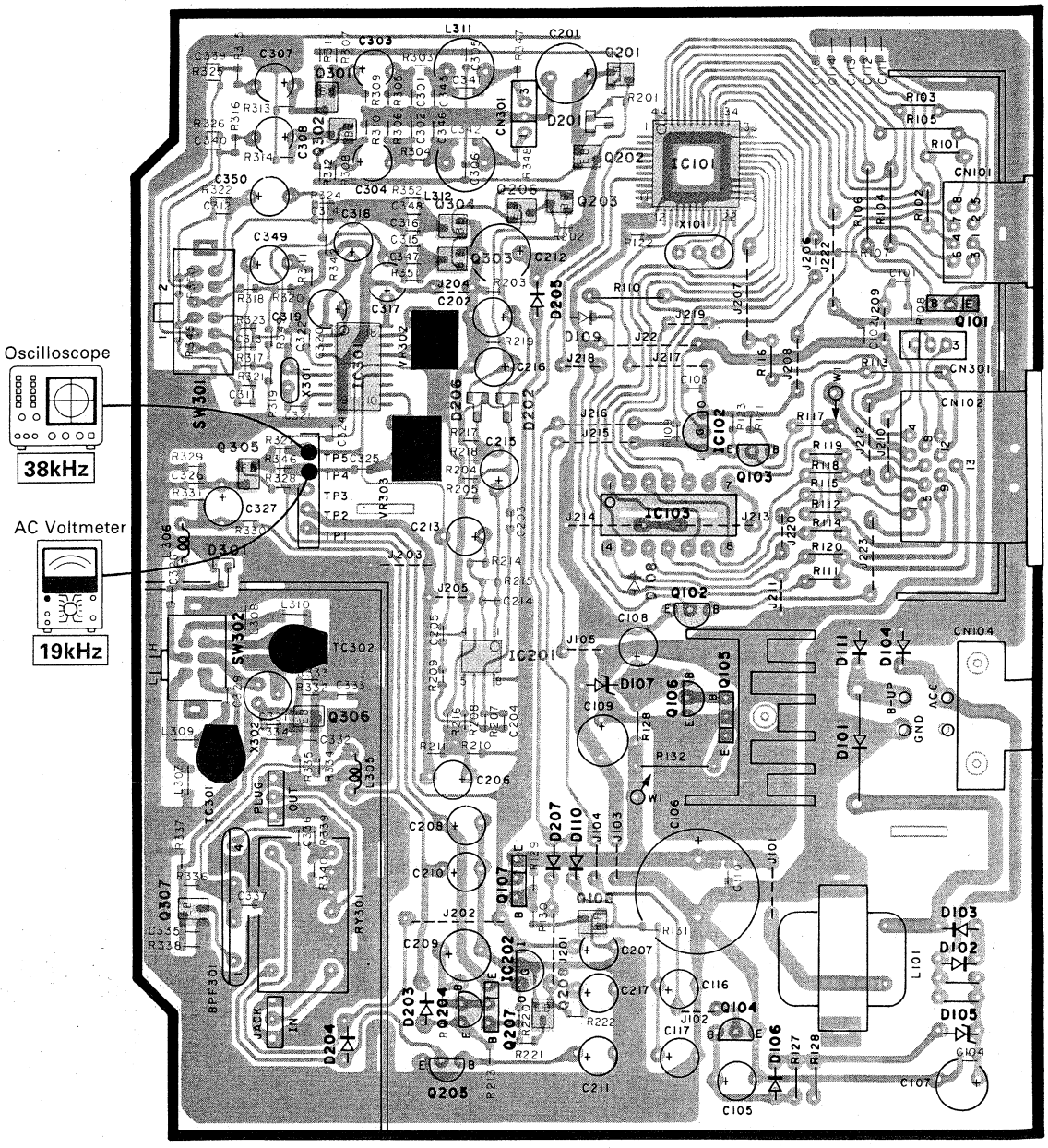

## DISPLAY UNIT (T95-0221-08):KCA-R30FM (T95-0219-08):KCA-R40FM



Refer to the schematic diagram for the values of resistors and capacitors.

# PC BOARD (Foil side view)

## RF MODULATOR UNIT

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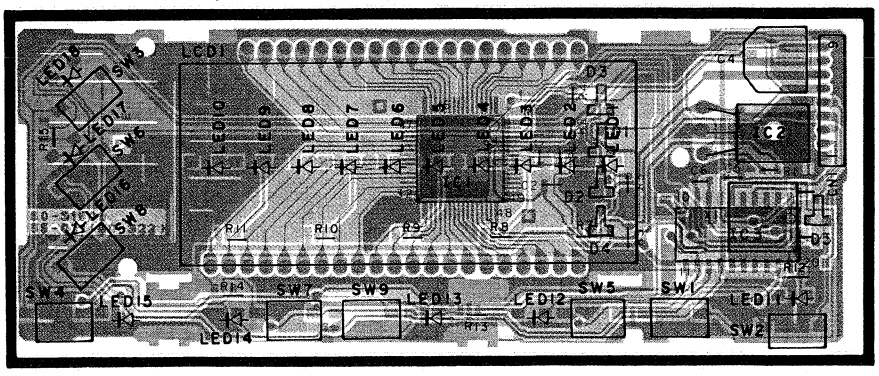
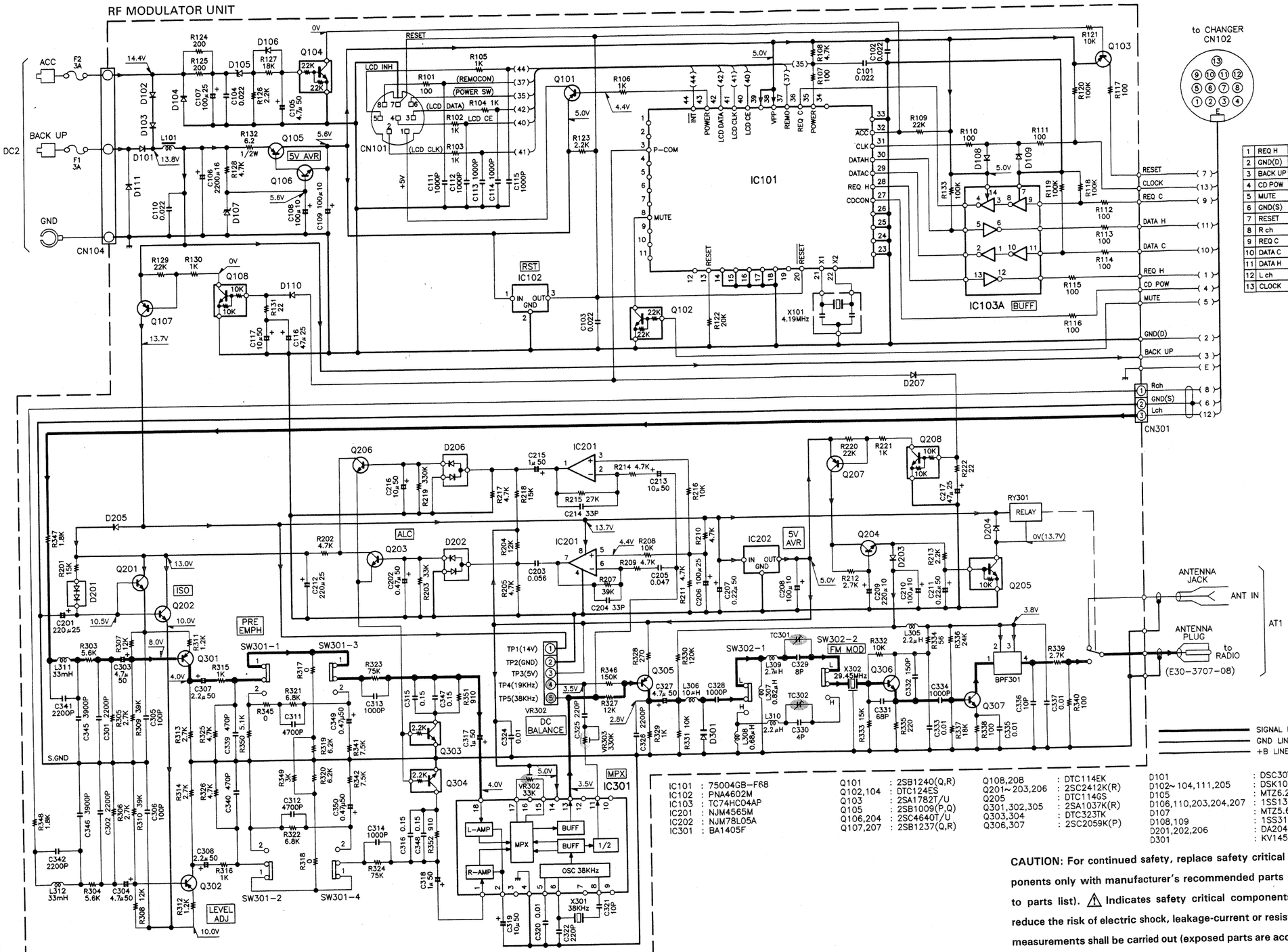


Refer to the schematic diagram for the values of resistors and capacitors.




| | |
|---|---|
| 1 | REQ H |
| 2 | GND(D) |
| 3 | BACK UP |
| 4 | CD POW |
| 5 | MUTE |
| 6 | GND(S) |
| 7 | RESET |
| 8 | R ch |
| 9 | REQ C |
| 10 | DATA C |
| 11 | DATA H |
| 12 | L ch |
| 13 | CLOCK |

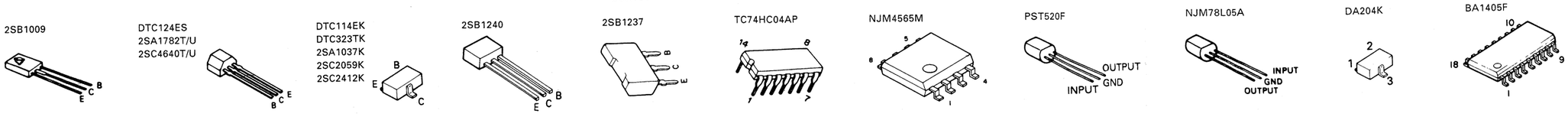
| | |
|---|---|
| IC101 | : 75004GB-F68 |
| IC102 | : PNA4602M |
| IC103 | : TC74HC04AP |
| IC201 | : NJM4565M |
| IC202 | : NJM78L05A |
| IC301 | : BA1405F |

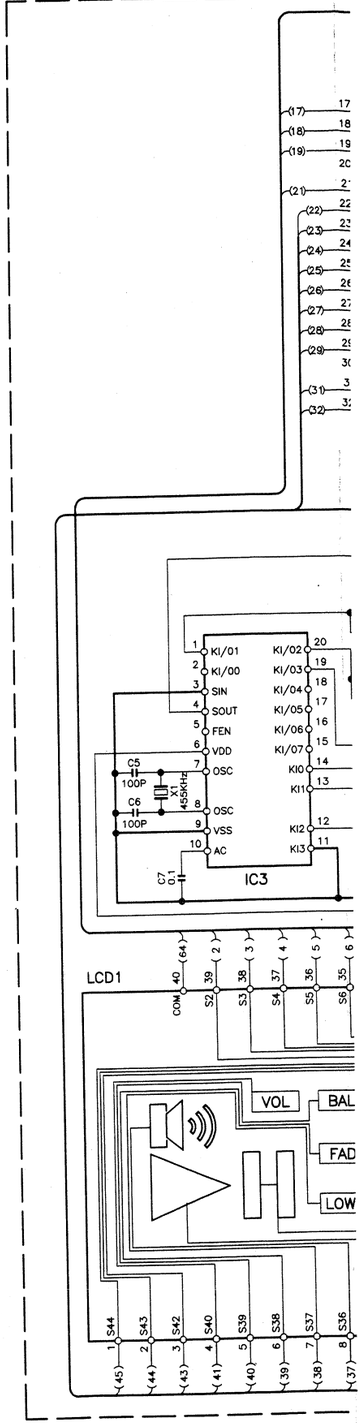
| | |
|---|---|
| Q101 | : 2SB1240(Q,R) |
| Q102,104 | : DTC124ES |
| Q103 | : 2SA1782T/U |
| Q105 | : 2SB1009(P,Q) |
| Q106,204 | : 2SC4640T/U |
| Q107,207 | : 2SB1237(Q,R) |
| Q108,208 | : DTC114EK |
| Q201~203,206 | : 2SC2412K(R) |
| Q205 | : DTC114GS |
| Q301,302,305 | : 2SA1037K(R) |
| Q303,304 | : DTC323TK |
| Q306,307 | : 2SC2059K(P) |

| | |
|---|---|
| D101 | : DSC30TC |
| D102~104,111,205 | : DSK10C |
| D105 | : MTZ6.2J(B) |
| D106,110,203,204,207 | : 1SS131 |
| D107 | : MTZ5.6J(B) |
| D108,109 | : 1SS318 |
| D201,202,206 | : DA204K |
| D301 | : KV1450 |

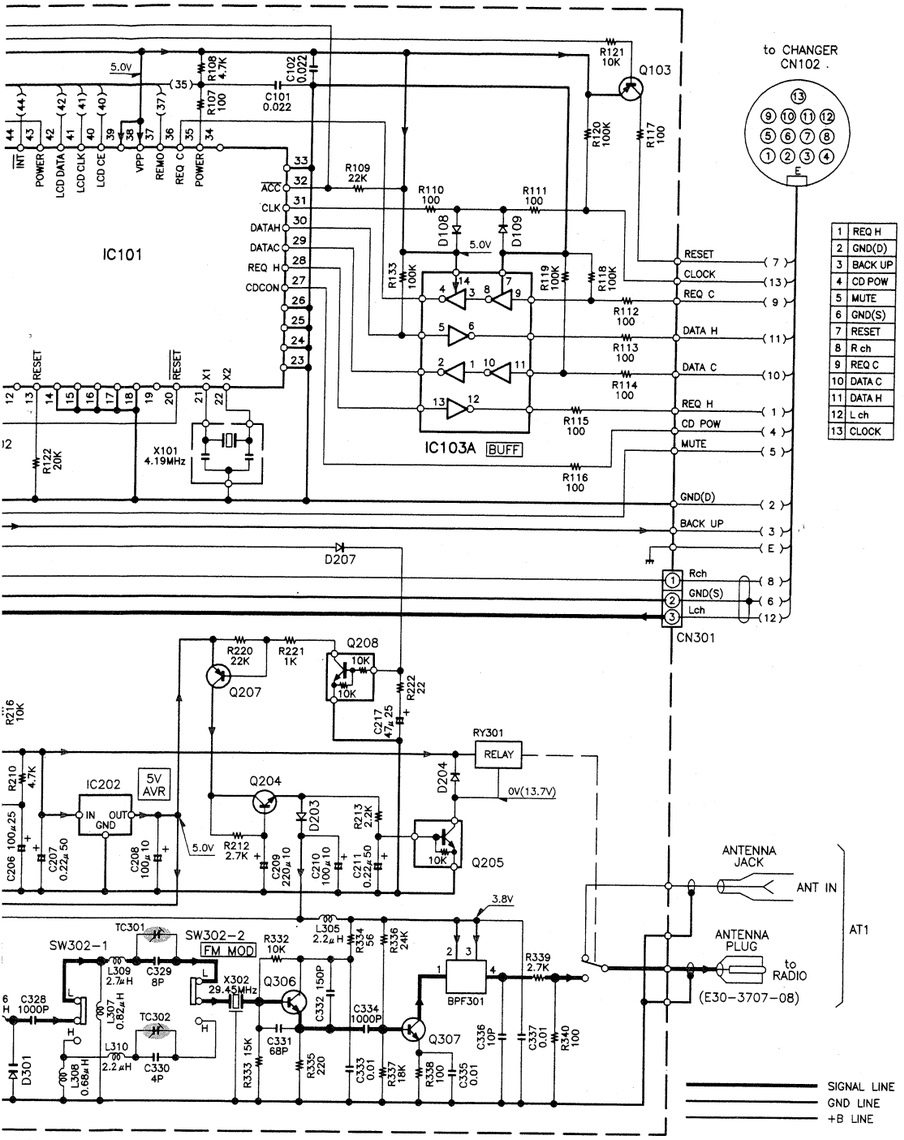
**CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.**

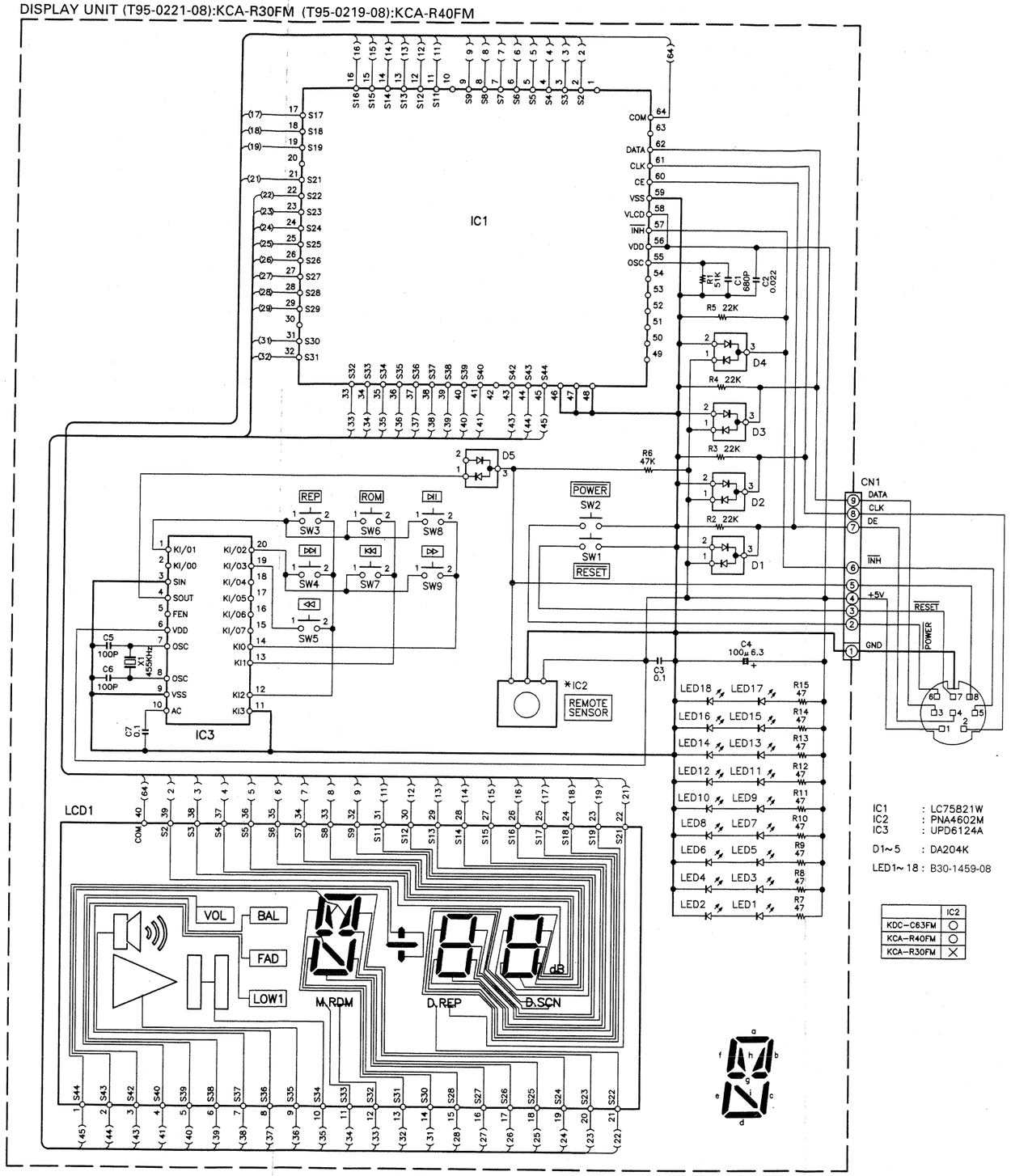
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.



DISPLAY UNIT (T95-0221-08):KCA-R30FM (T95-0219-08):KCA-R40FM




| | |
|---|---|
| IC1 | : LC75821W |
| IC2 | : PNA4602M |
| IC3 | : UPD6124A |
| D1~5 | : DA204K |
| LED1~18 | : B30-1459-08 |

| | IC2 |
|---|---|
| KDC-C63FM | ○ |
| KCA-R40FM | ○ |
| KCA-R30FM | × |

| | | | | | |
|---|---|---|---|---|---|
| : 75004GB-F68 | Q101 | : 2SB1240(Q,R) | Q108,208 | : DTC114EK | D101 : DSC30TC |
| : PNA4602M | Q102,104 | : DTC124ES | Q201~203,206 | : 2SC2412K(R) | D102~104,111,205 : DSK10C |
| : TC74HC04AP | Q103 | : 2SA1782T/U | Q205 | : DTC114GS | D105 : MTZ6.2J(B) |
| : NJM4565M | Q105 | : 2SB1009(P,Q) | Q301,302,305 | : 2SA1037K(R) | D106,110,203,204,207 : 1SS131 |
| : NJM78L05A | Q106,204 | : 2SC4640T/U | Q303,304 | : DTC323TK | D107 : MTZ5.6J(B) |
| : BA1405F | Q107,207 | : 2SB1237(Q,R) | Q306,307 | : 2SC2059K(P) | D108,109 : 1SS318 |
| | | | | | D201,202,206 : DA204K |
| | | | | | D301 : KV1450 |

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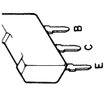
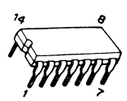
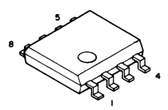
SB1237



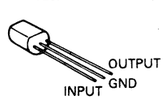

TC74HC04AP



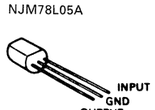

NJM4565M



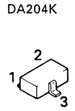

PST520F



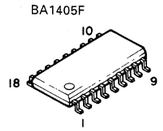

NJM78L05A




DA204K




BA1405F




KDC-C63FM
KCA-R30FM
KCA-R40FM

Y23-4060-10

KCA-R30FM/R40FM

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## EXPLODED VIEW (RF MODULATOR UNIT)




V : N89-3006-45
W : N89-3008-46

KCA-R30FM/R40FM (1/2)





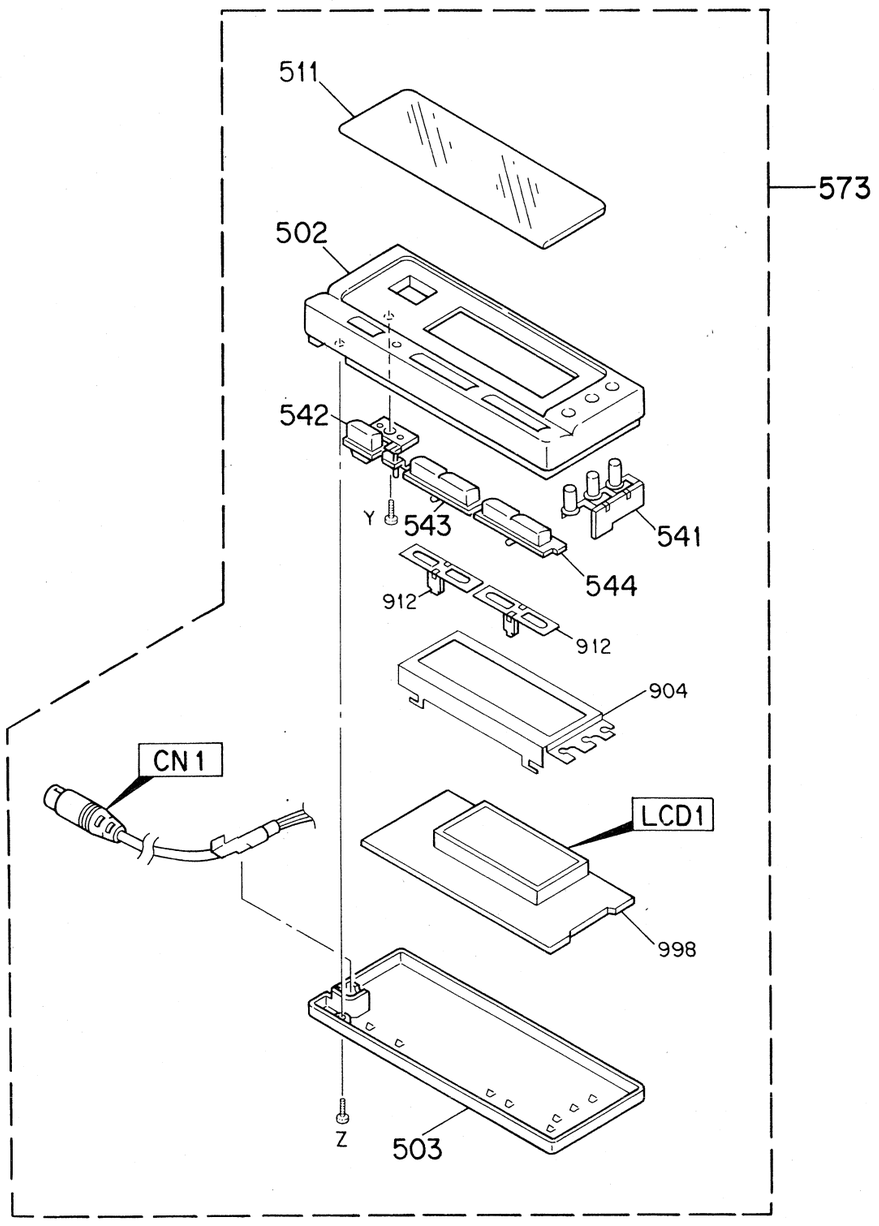
## EXPLODED VIEW (DISPLAY UNIT)




Y : N79-2040-45
Z : N79-2080-45

KCA-R30FM/R40FM(2/2)

# EXPLODED VIEW (DISPLAY UNIT)




Y : N79-2040-45
Z : N79-2080-45

KCA-R30FM/R40FM(2/2)



Parts with the exploded numbers larger than 700 are not supplied.

KCA-R30FM/R40FM

# PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名/規格 | Model name KCA- |
|---|---|---|---|---|---|
| **KCA-R30FM/R40FM** | | | | | |
| CR1 | 1A | * | A70-0840-05 | CARD REMOTE CONTROLLER (R40FM) | R40FM |
| - | | | B46-0100-30 | WARRANTY CARD | |
| - | | | B46-0172-03 | QUESTIONNAIRE | |
| - | | * | B64-0526-00 | INSTRUCTION MANUAL | |
| DC2 | 1A | | E30-3709-08 | DC CORD ASSY | |
| F1 ,2 | 1A | | F06-3026-05 | FUSE (3A) (a part of DC2) | |
| 249 | 1A | | H30-0501-08 | MAGIC TAPE ASSY (20X60) | |
| - | | * | H10-4504-08 | POLYSTYRENE FORMED FIXTURE | |
| - | | * | H13-1639-08 | PROTECTION BOARD | |
| - | | | H25-0003-03 | PROTECTION BAG (240X350) | |
| - | | | H25-0237-04 | PROTECTION BAG (160X400) | |
| - | | * | H54-0393-08 | ITEM CARTON CASE (KCA-R40FM) | R40FM |
| - | | * | H54-0394-08 | ITEM CARTON CASE (KCA-R30FM) | R30FM |
| - | | * | H64-0432-08 | OUTER CARTON CASE (KCA-R40FM) | R40FM |
| - | | * | H64-0433-08 | OUTER CARTON CASE (KCA-R30FM) | R30FM |
| 271 | 1A | * | N99-1634-08 | SCREW SET | |
| 273 | 2A | * | T95-0219-08 | DISPLAY UNIT ASSY (KCA-R40FM) | R40FM |
| 273 | 2A | * | T95-0221-08 | DISPLAY UNIT ASSY (KCA-R30FM) | R30FM |
| **RF MODULATOR UNIT** | | | | | |
| 401 | 1B | * | A01-2598-08 | CASE | |
| AT1 | 2B | | E30-3707-08 | ANTENNA CORD ASSY | |
| V | 1B | | N89-3006-45 | SCREW (3X6) | |
| W | 2B | | N89-3008-46 | SCREW (3X8) | |
| C101-104 | | | CK73FB1H223K | CHIP C 0.022UF K | |
| C105 | | | CE04DW1H4R7M | ELECTRO 4.7UF 50WV | |
| C106 | | | C90-1401-05 | ELECTRO 2200UF 16WV | |
| C107 | | | CE04DW1E101M | ELECTRO 100UF 25WV | |
| C108,109 | | | CE04DW1A101M | ELECTRO 100UF 10WV | |
| C110 | | | CK73FB1H223K | CHIP C 0.022UF K | |
| C111-115 | | | CK73FB1H102K | CHIP C 1000PF K | |
| C116 | | | CE04DW1E470M | ELECTRO 47UF 25WV | |
| C117 | | | CE04DW1H100M | ELECTRO 10UF 50WV | |
| C201 | | | CE04DW1E221M | ELECTRO 220UF 25WV | |
| C202 | | | CE04DW1HR47M | ELECTRO 0.47UF 50WV | |
| C203 | | | C93-1067-08 | CERAMIC 0.056UF | |
| C204 | | | CC73FCH1H330J | CHIP C 33PF J | |
| C205 | | | CK73FB1H473K | CHIP C 0.047UF K | |
| C206 | | | CE04DW1E101M | ELECTRO 100UF 25WV | |
| C207 | | | CE04DW1HR22M | ELECTRO 0.22UF 50WV | |
| C208 | | | CE04DW1A101M | ELECTRO 100UF 10WV | |
| C209 | | | CE04DW1A221M | ELECTRO 220UF 10WV | |
| C210 | | | CE04DW1A101M | ELECTRO 100UF 10WV | |
| C211 | | | CE04DW1HR22M | ELECTRO 0.22UF 50WV | |
| C212 | | | CE04DW1E221M | ELECTRO 220UF 25WV | |
| C213 | | | CE04DW1H100M | ELECTRO 10UF 50WV | |
| C214 | | | CC73FCH1H330J | CHIP C 33PF J | |
| C215 | | | CE04DW1H010M | ELECTRO 1.0UF 50WV | |
| C216 | | | CE04DW1H100M | ELECTRO 10UF 50WV | |

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名/規格 | Model name KCA- |
|---|---|---|---|---|---|
| C217 | | | CE04DW1E470M | ELECTRO 47UF 25WV | |
| C301,302 | | | CK73FB1H222K | CHIP C 2200PF K | |
| C303,304 | | | CE04DW1H4R7M | ELECTRO 4.7UF 50WV | |
| C305,306 | | | CC73FCH1H101J | CHIP C 100PF J | |
| C307 | | | CE04DW1H2R2M | ELECTRO 2.2UF 50WV | |
| C308 | | | CE04DW1H2R2M | ELECTRO 2.2UF 50WV | |
| C311,312 | | | CK73FB1H472K | CHIP C 4700PF K | |
| C313,314 | | | CK73FB1H102K | CHIP C 1000PF K | |
| C315,316 | | | C93-1042-08 | CERAMIC 0.15UF | |
| C317,318 | | | CE04DW1H010M | ELECTRO 1.0UF 50WV | |
| C319 | | | CE04DW1H100M | ELECTRO 10UF 50WV | |
| C320 | | | CK73FB1H103K | CHIP C 0.010UF K | |
| C321 | | | CC73FCH1H100J | CHIP C 10PF J | |
| C322 | | | CC73FCH1H221J | CHIP C 220PF J | |
| C324 | | | CK73FB1H103K | CHIP C 0.010UF K | |
| C325 | | | CC73FCH1H221J | CHIP C 220PF J | |
| C326 | | | CK73FB1H222K | CHIP C 2200PF K | |
| C327 | | | CE04DW1H4R7M | ELECTRO 4.7UF 50WV | |
| C328 | | | CK73FB1H102K | CHIP C 1000PF K | |
| C329 | | * | CC73FUJ1H080 | CHIP C 8.0PF | |
| C330 | | * | CC73FUJ1H040 | CHIP C 4.0PF | |
| C331 | | | CC73FUJ1H680J | CHIP C 68PF J | |
| C332 | | | CC73FUJ1H151J | CHIP C 150PF J | |
| C333 | | | CK73FB1H103K | CHIP C 0.010UF K | |
| C334 | | | CK73FB1H102K | CHIP C 1000PF K | |
| C335 | | | CK73FB1H103K | CHIP C 0.010UF K | |
| C336 | | | CC73FCH1H100J | CHIP C 10PF J | |
| C337 | | | CK73FB1H103K | CHIP C 0.010UF K | |
| C339,340 | | | CC73FCH1H471J | CHIP C 470PF J | |
| C341,342 | | | CK73EB1H222K | CHIP C 2200PF K | |
| C345,346 | | | CK73FB1H392K | CHIP C 3900PF K | |
| C347,348 | | | C93-1042-08 | CERAMIC 0.15UF | |
| C349,350 | | | CE04DW1HR47M | ELECTRO 0.47UF 50WV | |
| TC301,302 | | | C05-0508-08 | TRIMMER 20P | |
| CN101 | 2B | | E56-0811-05 | CONNECTOR 8P | |
| CN102 | 2B | | E56-0805-15 | CONNECTOR 13P | |
| CN104 | 2B | | E08-0413-05 | CONNECTOR 4P | |
| CN301 | | * | E39-0121-08 | CONNECTOR ASSY 3P | |
| BPF301 | | | L79-0917-08 | FILTER 87-90M | |
| L101 | | | L33-0934-08 | CHOKE TRANS | |
| L305 | | | L33-0980-08 | SMALL FIXED INDUCTOR 2.2uH | |
| L306 | | | L33-0979-08 | SMALL FIXED INDUCTOR 10uH | |
| L307 | | | L33-0970-08 | SMALL FIXED INDUCTOR 0.82uH | |
| L308 | | | L33-0973-08 | SMALL FIXED INDUCTOR 0.68uH | |
| L309 | | | L33-0972-08 | SMALL FIXED INDUCTOR 2.7uH | |
| L310 | | | L33-0976-08 | SMALL FIXED INDUCTOR 2.2uH | |
| L311,312 | | | L39-1008-08 | COIL 33mH | |
| X101 | | | L78-0518-08 | RESONATOR 4.19MHz | |
| X301 | | | L77-2018-08 | CRYSTAL RESONATOR 38KHz | |
| X302 | | | L78-0517-08 | RESONATOR 29.45MHz | |
| R107 | | | RK73FB2A101J | CHIP R 100 J 1/10W | |
| R108 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R109 | | | RK73FB2A223J | CHIP R 22K J 1/10W | |
| R121 | | | RK73FB2A103J | CHIP R 10K J 1/10W | |

L:Scandinavia K:USA P:Canada
M:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas



⚠ indicates safety critical components.

# PARTS LIST

* New Parts
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| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名/規格 | Model name KCA- |
|---|---|---|---|---|---|
| R122 | | | RK73FB2A203J | CHIP R 20K J 1/10W | |
| R123 | | | RK73FB2A222J | CHIP R 2.2K J 1/10W | |
| R129 | | | RK73FB2A223J | CHIP R 22K J 1/10W | |
| R130 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | |
| R131 | | | RK73FB2A220J | CHIP R 22 J 1/10W | |
| R132 | | | RD14DB2H6R2J | SMALL-RD 6.2 J 1/2W | |
| R133 | | | RK73FB2A104J | CHIP R 100K J 1/10W | |
| R201 | | | RK73FB2A153J | CHIP R 15K J 1/10W | |
| R202 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R203 | | | RK73FB2A333J | CHIP R 33K J 1/10W | |
| R204 | | | RK73FB2A123J | CHIP R 12K J 1/10W | |
| R205 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R207 | | | RK73FB2A393J | CHIP R 39K J 1/10W | |
| R208 | | | RK73FB2A103J | CHIP R 10K J 1/10W | |
| R209-211 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R212 | | | RK73FB2A272J | CHIP R 2.7K J 1/10W | |
| R213 | | | RK73FB2A222J | CHIP R 2.2K J 1/10W | |
| R214 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R215 | | | RK73FB2A273J | CHIP R 27K J 1/10W | |
| R216 | | | RK73FB2A103J | CHIP R 10K J 1/10W | |
| R217 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R218 | | | RK73FB2A153J | CHIP R 15K J 1/10W | |
| R219 | | | RK73FB2A334J | CHIP R 330K J 1/10W | |
| R220 | | | RK73FB2A223J | CHIP R 22K J 1/10W | |
| R221 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | |
| R222 | | | RK73FB2A220J | CHIP R 22 J 1/10W | |
| R303,304 | | | RK73FB2A562J | CHIP R 5.6K J 1/10W | |
| R305,306 | | | RK73FB2A272J | CHIP R 2.7K J 1/10W | |
| R307,308 | | | RK73FB2A123J | CHIP R 12K J 1/10W | |
| R309,310 | | | RK73FB2A393J | CHIP R 39K J 1/10W | |
| R311,312 | | | RK73FB2A122J | CHIP R 1.2K J 1/10W | |
| R313,314 | | | RK73FB2A272J | CHIP R 2.7K J 1/10W | |
| R315,316 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | |
| R317,318 | | | R92-2052-05 | CHIP R 0 J 1/10W | |
| R319,320 | | | RK73FB2A622J | CHIP R 6.2K J 1/10W | |
| R321,322 | | | RK73FB2A682J | CHIP R 6.8K J 1/10W | |
| R323,324 | | | RK73FB2A753J | CHIP R 75K J 1/10W | |
| R325,326 | | | RK73FB2A472J | CHIP R 4.7K J 1/10W | |
| R327 | | | RK73FB2A123J | CHIP R 12K J 1/10W | |
| R328 | | | RK73FB2A271J | CHIP R 270 J 1/10W | |
| R329 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | |
| R330 | | | RK73FB2A124J | CHIP R 120K J 1/10W | |
| R331,332 | | | RK73FB2A103J | CHIP R 10K J 1/10W | |
| R333 | | | RK73FB2A153J | CHIP R 15K J 1/10W | |
| R334 | | | RK73FB2A560J | CHIP R 56 J 1/10W | |
| R335 | | | RK73FB2A221J | CHIP R 220 J 1/10W | |
| R336 | | | RK73FB2A243J | CHIP R 24K J 1/10W | |
| R337 | | | RK73FB2A183J | CHIP R 18K J 1/10W | |
| R338 | | | RK73FB2A101J | CHIP R 100 J 1/10W | |
| R339 | | | RK73FB2A272J | CHIP R 2.7K J 1/10W | |
| R340 | | | RK73FB2A101J | CHIP R 100 J 1/10W | |
| R341,342 | | | RK73FB2A752J | CHIP R 7.5K J 1/10W | |
| R345 | | | R92-2052-05 | CHIP R 0 J 1/10W | |
| R346 | | | RK73FB2A154J | CHIP R 150K J 1/10W | |
| R347,348 | | | RK73FB2A182J | CHIP R 1.8K J 1/10W | |

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名/規格 | Model name KCA- |
|---|---|---|---|---|---|
| R349 | | | RK73FB2A302J | CHIP R 3.0K J 1/10W | |
| R350 | | | RK73FB2A512J | CHIP R 5.1K J 1/10W | |
| R351,352 | | | RK73FB2A911J | CHIP R 910 J 1/10W | |
| VR302 | | | R12-3648-08 | TRIMING POT. 33K | |
| VR303 | | | R12-3647-08 | TRIMING POT. 330K | |
| RY301 | | | S76-0802-08 | RELAY | |
| SW301 | 2B | | S62-0830-08 | SLIDE SWITCH | |
| SW302 | 2A | | S62-0807-08 | SLIDE SWITCH | |
| D101 | | | DSC30TC | DIODE | |
| D102-104 | | | DSK10C | DIODE | |
| D105 | | | MTZ6.2J(B) | ZENER DIODE | |
| D106 | | | 1SS131 | DIODE | |
| D107 | | | MTZ5.6J(B) | ZENER DIODE | |
| D108,109 | | | 1SS318 | DIODE | |
| D110 | | | 1SS131 | DIODE | |
| D111 | | | DSK10C | DIODE | |
| D201,202 | | | DA204K | DIODE | |
| D203,204 | | | 1SS131 | DIODE | |
| D205 | | | DSK10C | DIODE | |
| D206 | | | DA204K | DIODE | |
| D207 | | | 1SS131 | DIODE | |
| D301 | | | KV1450 | DIODE | |
| IC101 | | | 75004GB-F68 | IC | |
| IC102 | | | PST520F | IC(LOW POWER RESET) | |
| IC103 | | | TC74HC04AP | IC(HEX INVERTER) | |
| IC201 | | | NJM4565M | IC(OP AMP X2) | |
| IC202 | | | NJM78L05A | IC(VOLTAGE REGULATOR/ +5V) | |
| IC301 | | | BA1405F | IC | |
| Q101 | | | 2SB1240(Q,R) | TRANSISTOR | |
| Q102 | | | DTC124ES | DIGITAL TRANSISTOR | |
| Q103 | | | 2SA1782T/U | TRANSISTOR | |
| Q104 | | | DTC124ES | DIGITAL TRANSISTOR | |
| Q105 | | | 2SB1009(P,Q) | TRANSISTOR | |
| Q106 | | | 2SC4640T/U | TRANSISTOR | |
| Q107 | | | 2SB1237(Q,R) | TRANSISTOR | |
| Q108 | | | DTC114EK | DIGITAL TRANSISTOR | |
| Q201-203 | | | 2SC2412K(R) | TRANSISTOR | |
| Q204 | | | 2SC4640T/U | TRANSISTOR | |
| Q205 | | | DTC114GS | DIGITAL TRANSISTOR | |
| Q206 | | | 2SC2412K(R) | TRANSISTOR | |
| Q207 | | | 2SB1237(Q,R) | TRANSISTOR | |
| Q208 | | | DTC114EK | DIGITAL TRANSISTOR | |
| Q301,302 | | | 2SA1037K(R) | TRANSISTOR | |
| Q303,304 | | | DTC323TK | DIGITAL TRANSISTOR | |
| Q305 | | | 2SA1037K(R) | TRANSISTOR | |
| Q306,307 | | | 2SC2059K(P) | TRANSISTOR | |

## DISPLAY UNIT (T95-02XX-08)

| | | | | | |
|---|---|---|---|---|---|
| 502 | 1C | * | A02-1445-08 | FRONT CASE | |
| 503 | 3C | * | A02-1446-08 | REAR CASE | |
| 511 | 1C | * | B10-1624-08 | FRONT GLASS ASSY (KCA-R40FM) | R40FM |
| 511 | 1C | * | B10-1625-08 | FRONT GLASS ASSY (KCA-R30FM) | R30FM |
| 541 | 2D | * | K25-0713-08 | KNOB (REP, RDM, PLAY/STOP) | |
| 542 | 1C | * | K29-5576-08 | KNOB ASSY (POWER) | |

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas



⚠ indicates safety critical components.

KCA-R30FM/R40FM

PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名/規格 | Model name KCA- |
|---|---|---|---|---|---|
| 543 | 2C | * | K29-5577-08 | KNOB (DISC) | |
| 544 | 2D | * | K29-5578-08 | KNOB (TRACK) | |
| Y | 2C | * | N79-2040-45 | SCREW (2X4) | |
| Z | 3C | * | N79-2080-45 | SCREW (2X8) | |
| 573 | 1D | * | T95-0219-08 | DISPLAY UNIT ASSY (KCA-R40FM) | R40FM |
| 573 | 1D | * | T95-0221-08 | DISPLAY UNIT ASSY (KCA-R30FM) | R30FM |
| LCD1 | 2D | * | B38-0632-08 | LCD | |
| C1 | | | CK73GB1H681K | CHIP C 680PF K | |
| C2 | | | CK73FB1H223KTA | CHIP C 0.022UF K | |
| C3 | | | CK73FB1E104K | CHIP C 0.10UF K | |
| C4 | | | C92-0048-05 | ELECTRO 100UF 6.3WV | |
| C5 ,6 | | | CC73GCH1H101J | CHIP C 100PF J | |
| C7 | | | CK73FB1E104K | CHIP C 0.10UF K | |
| CN1 | 2C | * | E30-4277-08 | PIN CORD ASSY 8P | |
| R1 | | | RK73GB1J513J | CHIP R 51K J 1/16W | |
| R2 -5 | | | RK73GB1J223J | CHIP R 22K J 1/16W | |
| R6 | | | RK73GB1J473J | CHIP R 47K J 1/16W | |
| R7 -15 | | | RK73FB2A470J | CHIP R 47 J 1/10W | |
| SW1 -9 | | * | S70-0828-08 | TACT SWITCH | |
| D1 -5 | | | DA204K | DIODE | |
| IC1 | | * | LC75821W | IC | |
| IC2 | | * | PNA4602M | IC (for KCA-R40FM) | R40FM |
| IC3 | | * | UPD6124A | IC | |
| LED1-18 | | * | B30-1459-08 | LED | |

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas

⚠ indicates safety critical components.

KCA-R30FM/R40FM

# SPECIFICATIONS

Specifications subject to change without notice.

| | |
|---|---|
| Modulating Frequency (Hi) | 88.7 MHz |
| (Lo) | 88.3 MHz |

**General**

| | |
|---|---|
| Operating Voltage | 14.4 V (11 ~ 16 V) |
| Current consumption | 1.4 A |
| Operating Temperature | –10 ~ 50 °C |
| Size (W × H × D) | |
| (Controller) (KCA-R40FM only) | 54 × 85 × 5 mm (2-1/8 × 3-3/8× 3/16 in.) |
| (Display unit) | 105 × 40 × 18 mm (4-1/8 × 1-9/16 × 11/16 in.) |
| (Hide Away unit) | 150 × 30 × 120 mm (5-7/8 × 1-3/16 × 4-3/4 in.) |
| Weight | |
| (Controller) (KAC-R40FM only) | 0.028 kg (0.062 lbs) |
| (Display unit) | 0.125 kg (0.275 lbs) |
| (Hide Away unit) | 0.645 kg (1.419 lbs) |



KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

KENWOOD poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

KENWOOD strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

**Note:**

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.


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